



0054432

Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

JAN 31 2001

01-RCA-142

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State of Washington
Department of Ecology
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Addressees:

APPROVAL REQUEST TO RECLASSIFY WASTE SITE 600-67 (BRUGGEMANN'S WAREHOUSE, INCLUDING HEATING OIL TANK)

Waste site 600-67 is an old fruit storage warehouse, used before the Manhattan Project, and is referred to as the Bruggemann Warehouse (Warehouse). The warehouse is located in the 100-BC-1 Operable Unit of the Hanford Site and is 1.1 kilometers (0.7 miles) east of the Vernita Bridge. Adjacent to the warehouse is an underground heating oil tank, approximately 424 gallons, used to store heating oil during operation of the warehouse until 1943. A small amount of liquid (mixture of fuel and water) remains in the tank bottom and is approximately two inches. No known releases are documented. Enclosure 1 is a summary report of waste site 600-67, which identifies the location and history of the warehouse and tank. Enclosure 2 is the Waste Site Reclassification Form.

A walk-down was conducted with the U.S. Environmental Protection Agency, the State of Washington Department of Ecology, Fluor Hanford, Inc., DynCorp Tri-Cities Services, Bechtel Hanford, Inc., and the U.S. Department of Energy, Richland Operations Office (RL), on November 21, 2000, to evaluate waste site 600-67, and discuss plans to reclassify the waste site in accordance with the Hanford Federal Facility Agreement and Consent Order procedure. Procedure RL-TPA-90-0001, Guideline Number TPA-MP-14, Section 5.3 discusses the waste site reclassification process.

Addressees
01-RCA-142

-2-

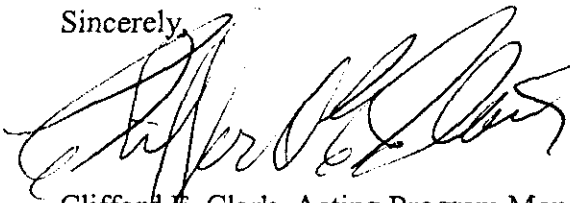
JAN 31 2001

Washington Administrative Code 173-360-110(2)(h) provides an exemption for underground storage tank systems of 1,100 gallons or less capacity used for storing heating oil for consumptive use on the premises where stored. Based on the dimensions of the tank, which are approximately 40 inches in diameter and 78 inches long, the volume is calculated at 424 gallons. The diameter was obtained by sounding the tank through the accessible riser opening, while the length was measured using metal rods inserted into the soil to locate the ends of the tank. Areas surrounding the tank do not indicate any "stressed vegetation" or stained soil. No known releases are documented for this waste site.

As part of the historic registration of the warehouse currently in progress, the tank will be included in the registration and may be filled for subsidence control. Removal of the tank would be undesirable based on the approximate location to the foundation of the warehouse, and the historical designation. Additionally, the tank riser tube will be covered/capped to prevent additional water intrusion into the tank.

Your approvals are requested to reclassify waste site 600-67 as "rejected" based on the information provided. If you want to discuss this matter further or require additional information, please contact Tom Ferns, Environmental Restoration Division, at (509) 372-0649, or Steve Burnum, Office of Site Services, at 376-8409.

Sincerely,



Clifford E. Clark, Acting Program Manager
Office of Regulatory Liaison

RCA:JKY

Enclosures

cc w/encls:

R. F. Potter, BHI
S. G. Weiss, BHI
J. H. Richards, CTUIR
C. J. Clement, DYN
B. J. Dixon, DYN
J. Price, Ecology
R. F. Stanley, Ecology
D. A. Faulk, EPA

M. A. Wilson, EPA
J. S. Hertz, FHI
D. S. Kelly, FHI
O. S. Kramer, FHI
T. Martin, HAB
P. Sobotta, NPT
M. L. Blazek, Oregon Energy
R. Jim, YN
Administrative Record

Waste Information Data System

General Summary Report

1/9/2001

Site Code: 600-67	Site Classification: Accepted		Page 1
Site Names:	600-67, Bruggemann's Fruit Storage Warehouse		
Site Type:	Storage	Start Date:	1922
Status:	Inactive	End Date:	1943
Operable Unit:	100-BC-1	Coordinates:	
Hanford Area:	600	(E) 559954.875	
		(N) 145442.5	
		Washington State Plane	

Site Description: The Bruggemann's Warehouse site is the remaining single story warehouse, associated foundations, piping, and debris surrounding the site. During 1998 and 2000 field visits, an abandoned fuel tank was identified adjacent to the warehouse. The tank has a 0.6 meter (2 foot) filler pipe showing above ground. All other pipes seen in the area could be attributed to the facility water system.

The building is considered culturally significant because of its good condition and use of native materials for construction. It is in the process (as of January 2001) for listing on the National Register of Historic Places.

The main warehouse construction consists of local cobblestones in a concrete matrix. An extension of similar construction is present on the south end; it is unknown if this is original to the building or a later addition. The long axis of the warehouse runs north-south. The horizontal wood sheathing of the gable roof is still present on the rafters. On the southeast corner, however, the roof has caved in. Small nails in the roof sheathing indicate that shingles were probably present at one time. The roof overhangs the east and west walls. A cobblestone chimney emerges from the crest of the gable near the south end of the roof. On the west elevation, there is a distinct straight line of cobbles running along the length of the wall about 3 feet (0.9 meters) above grade. A wooden door with a wood frame is in the center of the elevation. On the south edge of the doorway is a wooden plank off its hinges that looks like a garage door. The doors are orange with dark brown decorative trim and each bears two wood frame windows. The north half of this wall has a distinctly straight line of cobbles about 2 feet (0.6 meters) above grade, similar to the west and north walls. On the south wall of the warehouse, there is a wood frame doorway just east of center. The cobblestone extension at the south end of the warehouse is missing its roof. Above most of the structure's doors and windows, the cobblestones are arranged to form decorative arches. The east wall appears to be the main entrance. On all four corners of the building and in the center of the east wall, decorative columns taper diagonally from the ground to the top of the wall. There is a wood frame doorway near the south end. A tall wood frame window south of the door, and two similar windows are north of the door. On the west wall is a single window. The north wall of the extension faces the warehouse, and there is approximately 1 meter (3 feet) between the two walls. In the center of the wall is a doorway with a small square window east of it. A large pile of cobbles lies outside the chain link fence south of the extension.

Foundations to the east of the warehouse show other facilities related to fruit packing. A possible fruit washing facility shows evidence of two parallel tables with troughs underneath for draining. Also east of the warehouse is a round concrete foundation with heavy steel eyebolts, presumably to support a tank for pressurized water.

Location Description: The site is located approximately 1.1 kilometers (0.7 miles) east of the Vernita Bridge and State Highway 240. On the Hanford Site, the site may be accessed via Route 6 between miles 6 and 7.

Process Description: The following comments on life at the site (1937 - 1943) are from a telephone interview with Mary Bruggemann (she was married to Paul Bruggemann). She is now living in Yakima. They grew peaches, cherries, a new orchard of prunes, and a few wine grapes. The site had a river pumphouse for acquiring water for the orchards. Native Americans were hired during harvest time to pick fruit. Fruit was transported by truck and utilized the Hanford Engineering Works (HEW) train when it first came through. They also had a lot of sheep and a few cattle. The Bruggemann's had two employees.

Associated Structures: Remnants of previous structures at the site include a concrete pad located approximately north of the warehouse, and a concrete walkway that runs from the east side of the warehouse to a rectangular concrete foundation approximately 12 meters (40 feet) by 24 meters (80 feet).

East of the foundation is the circular concrete foundation for the water tank, approximately 6 meters (20 feet) in diameter. West of the warehouse is the remnant of a house foundation. The area

	<p>surrounding the warehouse consists of agricultural debris including vitrified clay piping for irrigation, dead fruit trees, and fencing material.</p>
Site Comment:	<p>This cobblestone structure, known as Bruggemann's Warehouse, was identified in 1974 during the Atomic Energy Commission Project Clean-up Program at the pre-1943 orchard site of Riverland. The orchard was well-known in the area for its peach production and was at its prime from about 1925 to 1943. The warehouse is the sole remaining structure at Riverland. It is thought to have been built by a man named Mercy from Yakima, Washington, in 1922 and later acquired by Paul Bruggemann. Its cobblestone construction reflects a distinct application of local environmental resources from gravel deposits of the nearby Columbia River, making it highly unique to the area. David Rice noted collapsed structures of similar style at Paris Ranch on the Wahluke Slope and the New York Ranch at China Bar. Bruggemann's Warehouse meets the 50 year age criterion for listing consideration in the National Register of Historic Places (36 CFR Part 60). The building is significant under Criterion A for its association with the settlement and subsequent economic and community development of the White Bluffs area. In addition, the building's architectural features embody the distinctive characteristics of a type, period, or method of construction to qualify for listing consideration in the Register under Criterion C.</p> <p>The riser pipe attached to the fuel tank that is adjacent to the east wall of the warehouse is accessible and an odor of fuel is evident. Through use of a soil probe, the tank was judged to run mostly north of the pipe, with a total length of 2 meters (6.5 feet). The depth of tank is approximately 1 meter (40 inches), based on measurements taken via the riser pipe. In February 1998 and September 2000, approximately 5 centimeters (2 inches) of liquid was observed in the tank, which is primarily water due to the riser tube not being capped.</p> <p>Previous documentation of agricultural practices before 1943 in farmstead such as this show that pesticides were used extensively for codling moths (lead arsenic) and red spiders (sulfur compounds). These pesticides were applied during the growing season, so some would have washed off at the fruit washing building, and drained with the excess water. Aerial photos taken when the facility was in operation (1939 and 1941) do not show evidence of where the wash water drained (i.e., there are no areas of increased vegetative growth near the facility, which would have resulted from wash water drainage). Examination and discussions of the site with a cultural resources specialist indicate that the excess water likely was diverted to the river, since there is no other drainage area evident now or on 1939 or 1941 aerial photos.</p>
Cleanup Activities:	<p>The well was installed in the 1920s, does not meet State of Washington compliance regulations, and has been determined to be a non-compliant, orphaned well, and thus qualified for decommissioning. A hose was used to fill the well with cement to existing grade. While there is a fence around the warehouse facility, the well decommissioning eliminated a potential safety hazard inside the enclosure. This decommissioning approach was reviewed by the State Historic Preservation Office (SHPO) and judged to have "no adverse effect" on the warehouse. The well decommissioning was completed in December 2000.</p> <p>The underground tank was used to store heating oil and is exempt from CERCLA because of the petroleum exclusion. The tank can also be considered exempt from the Underground Storage Tank Regulations, Washington Administrative Code (WAC) 173-360, because it is a heating oil tank less than 4,164 liters (1,100 gallons) and no releases are known to have occurred. A field survey of the site also determined that the tank, in its current state and location within the locked fence surrounding the warehouse structure, does not pose a risk to the environment, workers or the public and no further remediation is required. The only recommendation is to stabilize the tank in place by filling the tank with sand or an absorbent to avoid subsidence, depending on the outcome of the historic designation.</p>
Access Comments:	<p>The warehouse is surrounded by a locked chain link fence. There are no restrictions posted. No sanitary facilities or water are available at the site. The site is located in rattlesnake habitat. Several tripping hazards were observed.</p>
References:	<ol style="list-style-type: none">1. T. F. Johnson, 4/28/95, Suspect Waste Site Investigation Logbook, EL-1238.2. D.W. Harvey, I.C. Lindsay, W.S. White, S. M. Quinn, 5/3/95, Bruggemann's Warehouse.3. David Blumenkranz, 7/30/91, The Bruggeman Fruit Storage Warehouse "Mystery Site".4. C.B. Corriveau, 3-4-98, CC:Mail from Clarence Corriveau to Linda Dietz and Dennis Faulk Regarding Operable Unit Change.5. S. G. Weiss, Field Logbook, EL-1428.

6. J.J. Sharpe, 12/1999, Pre-Hanford Agricultural History: 1900-1943, BHI-01326, Rev 0.
7. Jim Sharpe, 1/2/0001, Bruggemann Warehouse Fuel Tank (Field Notes).

Dimensions:

Length: 33.83 Meters 111.00 Feet

Width: 14.02 Meters 46.00 Feet

Site Shape: Rectangle

Comment: The dimensions are of the fence around the warehouse, and do not include the nearby foundations.

References: 1. T. F. Johnson, 4/28/95, Suspect Waste Site Investigation Logbook, EL-1238.

Regulatory Information:**Programmatic Responsibility**

DOE Program: EM-70 Confirmed By Program: Yes

DOE Division: SID - Site Infrastructure Division

Responsible

Contractor/Subcontractor: FH-LL. Fluor Hanford - Infrastructure/Landlord.

Site Evaluation

Solid Waste Management Unit: Yes

TPA Waste Management Unit Type: Other Storage Area

Permitting

RCRA Part A Permit: No 216/218 Permit: No

RCRA Part B Permit: No NPDES: No

Closure Plan: No State Waste Discharge Permit: No

TSD Number: Septic Permit: No

Air Operating Permit: No Inert Landfill: No

Air Operating Permit
Number(s):

Tri-Party Agreement

Lead Regulatory Agency: EPA

Unit Category:

TPA Appendix:

Remediation and Closure

Decision Document:

Decision Document Status:

Remediation Design Group:

Closure Document:

Closure Type:

Post Closure Requirements:

Residual Waste:

Waste Information:

Type: Misc. Trash and Debris
Category: Nondangerous/nonradioactive
Physical State: Solid
Start Date: 1922 End Date: 1943
Waste Obscured: I
Description: Farm debris was observed around the site including fence posts, pipe, food tins, buckets, farm machinery parts, barbed wire, and wire.
References: 1. T. F. Johnson, 4/28/95, Suspect Waste Site Investigation Logbook, EL-1238.

Type: Storage Tank
Category: Nondangerous/nonradioactive
Physical State: Solid and Liquid
Waste Obscured: Soil Overburden
Description: The underground storage tank was used for storing fuel. Approximately 5 centimeters (1.97 inches) of water and fuel residue remained in the bottom of the tank in February 1998 and September 2000.
References: 1. S. G. Weiss, Field Logbook, EL-1428.
2. T.F. Johnson, 10/24/96, Site Investigation Logbook, EL-1336.

Field Work:

Type: Analytical Sampling
Begin Date: 08/20/1966
End Date: 02/25/1987 Data Repository: HEIS
Purpose: Groundwater Monitoring
Comment: A groundwater monitoring well is located inside a former building. The well identifier is 699-72-98. The well has not been sampled since 1987 and does not carry a barcode (current method for marking/tagging wells) well identification number.

Sample numbers are H000FGS0, H000FGS1, H000FGS2, H000FGS3, H000FGS4, H000FGS5, H000G8J0, H000FGS6, H000FGS7, H000FGS8, H000FGS9, H000FGT0, H000FGT1, H000FGT2, H000FGT3. The results can be found in HEIS.

References:

Type: Site Walkdown
Begin Date: 09/26/2000 Field Crew: Jim Sharpe, Curt Clement, Randy Hermann, Steve Weiss
End Date: 09/26/2000
Purpose: Evaluate pipes and other concerns
Comment: The fuel tank is adjacent to east wall of warehouse, and extends both to the north and to the south of the pipe. It appears to be buried about 10 to 12 centimeters (4 to 5 inches) below the surface, but the total extent of the tank could not be determined at this time. The foundation of the fruit washing building was determined; because lead arsenic and sulfur compounds were used as pesticides they may have been washed off at this facility. However, aerial photos from 1939 and 1941 do not show any area where this wash water drained (such drainage areas would be evident on aerial photos as areas of increased vegetation), so it likely was diverted to the river.

References: 1. S. G. Weiss, Field Logbook, EL-1428.

Type: Site Walkdown

Begin Date: 02/18/1998

Field Crew: Tim Johnson

End Date: 02/18/1998

Purpose: Additional site description

Comment: The purpose of this visit was to obtain further information concerning the pipe located just off the southwest corner of the south building. The pipe extends 0.61 meters (2 feet) above ground, is 7 centimeters (2.75 inches) in diameter and is threaded at the top. The pipe has been filled with rocks. A 1.8 meter by 1.8 meter (6 foot by 6 foot) concrete pad was observed immediately north of the pipe.

Additional observations: A well was observed inside the southern building. It measured 30.5 centimeters (12 inches) in diameter and is located within a concrete box measuring 1.2 meters by 0.97 meters by 1.5 meters (3.8 feet by 2.8 feet by 5 feet) deep below grade. Other pipes include four pipes, 3.8 centimeters to 5 centimeters (1.5 to 2 inches) diameter extending from the concrete floor of the southern building, and a 7 centimeter (2.75 inch) diameter pipe located between the northern and southern building filled with soil. A 8.3 centimeter (3.25 inch) diameter pipe was observed on the east side of the building. This pipe extends 63.5 centimeters (25 inches) above grade and measures 180.3 centimeters (71 inches) deep. A residue of water and fuel about 5 centimeters (2 inches) deep was observed on the bottom of the measuring device used to check for any remaining liquid. A floor drain was observed in the floor of the southern building.

References: 1. T.F. Johnson, 10/24/96, Site Investigation Logbook, EL-1336.

Type: Site Walkdown

Begin Date: 02/12/1996

Field Crew: T. F. Johnson

End Date: 02/12/1996

Purpose: Initial Review

Site Cover:

Site Accessible: No

Site Found: Yes

Soil Discoloration: No

Debris Visible: Yes

References: 1. T. F. Johnson, 4/28/95, Suspect Waste Site Investigation Logbook, EL-1238.

Images:

Date Taken: 2/12/96

Pathname: \\ercfs02\widsimg\600\3680\3680_01.JPG

Description: Bruggemann's Warehouse looking north.

Date Taken:

Pathname: \\ercfs02\widsimg\600\3680\3680_03.JPG

Description: Bruggemann's Warehouse looking east.

Date Taken:

Pathname: \\ercfs02\widsimg\600\3680\3680_04.JPG

Description: Bruggemann's Warehouse looking east.

Date Taken:

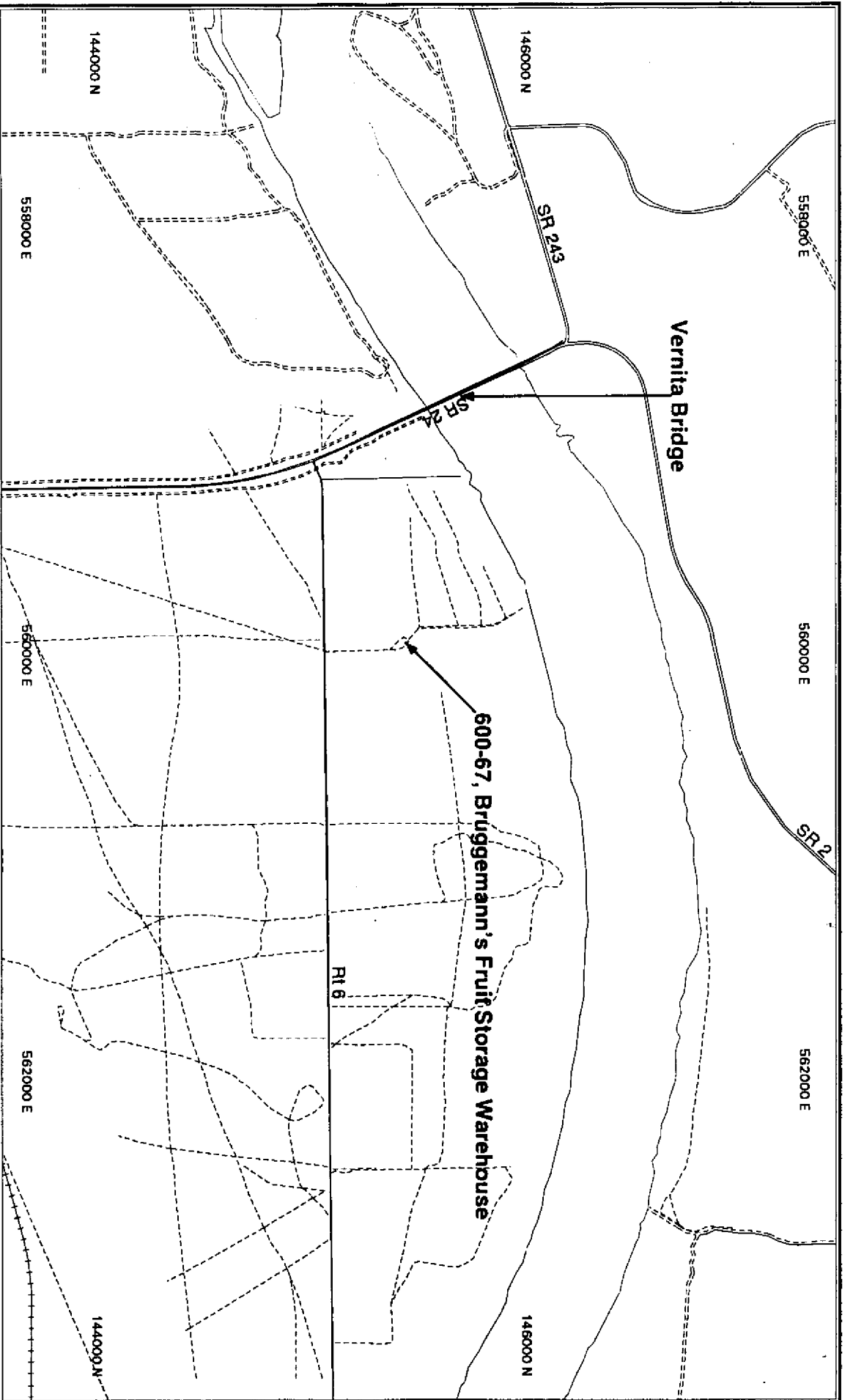
Pathname: \\ercfs02\widsimg\600\3680\3680_05.JPG

Description: Bruggemann's Warehouse looking northwest.

Date Taken:

Pathname:	\\ercfs02\widsimg\600\3680\3680_06.JPG
Description:	Concrete foundations east of Bruggemann's Warehouse.
Date Taken:	
Pathname:	\\ercfs02\widsimg\600\3680\3680_07.JPG
Description:	Concrete and rock foundations located east of the remaining buildings.
Date Taken:	
Pathname:	\\ercfs02\widsimg\600\3680\3680_08.JPG
Description:	Looking from the southeast to the northwest.
Date Taken:	
Pathname:	\\ercfs02\widsimg\600\3680\3680_09.JPG
Description:	Looking from northwest to the southeast.
Date Taken:	2/12/96
Pathname:	\\ercfs02\widsimg\600\3680\3680_10.JPG
Description:	Concrete foundations remaining east of Bruggemann's Warehouse.
Date Taken:	2/12/96
Pathname:	\\ercfs02\widsimg\600\3680\3680_11.JPG
Description:	The remains of fruit tree near the site.
Date Taken:	
Pathname:	\\ercfs02\widsimg\600\3680\3680_12.JPG
Description:	Rock pile south of Bruggemann's Warehouse looking west.
Date Taken:	
Pathname:	\\ercfs02\widsimg\600\3680\3680_13.JPG
Description:	Southern building looking from the east.
Date Taken:	
Pathname:	\\ercfs02\widsimg\600\3680\3680_14.JPG
Description:	Bruggemann's Warehouse looking northeast.
Date Taken:	2/18/98
Pathname:	\\ercfs02\widsimg\600\3680\3680_15.JPG
Description:	View of pipes and concrete box below grade inside the southern building. The circular structure in the center is a plugged cistern; the metal piece rising up from the concrete to the right is a pier for a windmill that was built above the well to pull water up.
Date Taken:	2/18/98
Pathname:	\\ercfs02\widsimg\600\3680\3680_16.JPG
Description:	View of plugged water pipe located between the northern and southern buildings.
Date Taken:	2/18/98
Pathname:	\\ercfs02\widsimg\600\3680\3680_17.JPG
Description:	This photo is a view of the pipe off the southwest corner of the south building. Soil probing showed this to be a water pipe, and not related to an underground tank.
Date Taken:	2/18/98
Pathname:	\\ercfs02\widsimg\600\3680\3680_18.JPG
Description:	View of pipe located east of the northern building. The odor of fuel was detected in this pipe.
Date Taken:	2/18/98
Pathname:	\\ercfs02\widsimg\600\3680\3680_19.JPG

Description:	View of pipe located on the east side of the northern building. The odor of fuel was detected in this pipe.
Date Taken:	9/28/00
Pathname:	\\ercfs02\WIDSimg\600\3680\3680_20.jpg
Description:	The steel pipe is the original well used for the fruit operation, and as of the date of the picture, was still open.



Hanford Geographic
Information System
Database: 01/02/01 1:40 PM

Waste Site Reclassification Form

Date Submitted: 11/13/2000 Originator: S. G. Weiss Phone: 372-9495	Operable Unit(s): 100-BC-1 Waste Site ID: 600-67 Type of Reclassification Action: Rejected <input checked="" type="radio"/> Closed-Out <input type="radio"/> No Action <input type="radio"/>	Control Number: 2000- 125
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This form documents agreement among the parties listed below authorizing classification of the subject unit as rejected, closed-out, or no action and authorizing backfill of the site, if appropriate. Final removal from the NPL of no action or closed-out sites will occur at a future date.

Description of current waste site condition:

The Bruggemann's Warehouse site is the remaining single story warehouse (two structures), associated foundations, piping, and debris surrounding the site. During 1998 and 2000 field visits, an empty, abandoned (pre-Hanford) heating fuel tank was identified with a 0.6 meter (2 foot) filler pipe above ground. The tank is buried between the warehouse foundations. The tank was measured to have a depth of 1 meter (40 inches) and length of 2 meters (6.5 feet), with a calculated capacity of 1,600 liters (424 gallons).

The building is considered culturally significant because of its good condition and use of native materials for construction. It is in the process for listing on the National Register of Historic Places.

Basis for reclassification:

Washington Administrative Code (WAC) 173-360-110(2)(h) provides an exemption for underground storage tank (UST) systems of one thousand one hundred gallons or less capacity used for storing heating oil for consumptive use on the premises where stored. Based on the dimensions of the tank, which are 40 inches in diameter and 78 inches long, the volume is calculated at 424 gallons. The diameter was obtained by sounding the tank through the accessible riser opening, while the length was measured using metal rods inserted into the soil to locate the ends of the tank. Areas surrounding the tank do not indicate any "stressed vegetation" or stained soil. No known releases are documented for this waste site.

Based on the listing of the Bruggemann Warehouse on the National Listing of Historic Places, the adjacent tank will be considered for filling for subsidence control. Removal of the tank would be undesirable based on the proximity to the foundation of the building and the historical designation (in process).

<u>Steven Burnum</u> DOE Project Manager	<u>Steven Burnum</u> Signature	<u>1/04/2001</u> Date
Ecology Project Manager	Signature	Date
EPA Project Manager	Signature	Date